A New *Anthicus* from California

(Coleoptera: Anthicidae)

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Recent studies in the dune areas near the mouth of the Sacramento River have resulted in the collection of a new species of *Anthicus*. This species appears to be restricted to these dune areas and its existence in this restricted habitat is being brought to the attention of the Office of Endangered Species.

I would like to thank Dr. F. G. Werner, University of Arizona, and Christine A. Janus-Chandler for checking the manuscript. All measurements are in millimeters.

Anthicus sacramento, new species
(Figs. 1-3)

3.18-3.63 long. Head and prothorax rufescent, elytra all testaceous to piceous with large testaceous areas at humeri and in apical fourth in most specimens, legs testaceous. Head, pronotum and underside of body covered with faintly reticulate sculpture. Body and elytra with moderately dense, subdecumbent setae.

Holotype male: 1 mi. W Isleton. Head 0.71 long, truncate at base, basal angles rounded, widest just behind eyes, 0.68; punctation moderately dense across front, sparse along narrow longitudinal line at center of frons, setae on frons 0.06 long. Eyes large, last segment of maxillary palpus obliquely truncate. Antennae rufescent, antennomeres elongate, length/width antennomeres I-XI: I 0.17XO.07, II 0.12X0.06, III 0.16X0.06, IV 0.15X0.06, V 0.17X0.06, VI 0.15X0.06, VII 0.15X0,06, VIII 0.12X0.06, IX 0.15X0.07, X 0.12X0.08, XI 0.17X0.08.

Pronotum cordate, 0.70 long, maximum width 0.72 at 0.46 from base, 0.48 wide at base, prominent at apical angles, dorsal margins abruptly sloping to collar, faintly rugulose appearance caused by slightly raised edges around numerous setal punctures, punctures denser than on head. Collar rugulose, 0.31 wide.

Elytra 1.80 long, with prominent humeral angles, widest at middle, maximum width 1.14 at 0.70 from base, elytra without reticulation, setae 0.08 long, punctures separated by at least their own width. Hind wings fully developed.

Ventral sclerites of thorax with punctation similar in size and spacing to that of elytra. Abdomen similar but with smaller punctures. Setae along posterior margin of propleura directed laterally. Femora moderately thick, profemur 0.67X0.23, protibia 0.58X0.10, metafemur 0.78X0.23, metatibia 0.81X0.09, metatibia with medial expansion at 0.30 from base, shallow emargination extending from expansion to 0.60 from base. Sternite seven biemarginate at apex with center produced, dense short setae directed medially along apex.

Specimens examined: HOLOTYPE male: Grand Island, 1 mi W Isleton, Sacramento County, California, 13 July 1975, J. Doyen, P. Opler, J. Powell, deposited in the California Academy of Sciences. 36 PARATYPES: California: *Solano County:* 8 males, 3 females, Rio Vista, 21 August 1974, D. S. Chandler, collected in sand dune area (D. S. Chandler collection); 6 males, 4 females, 2 mi SW Rio Vista, 18 August 1974, J. Doyen & P. Opler (Univ. Calif., Berkeley). *Sacramento County:* 10 males, 2 females, eutopotypical (Univ. Calif.,

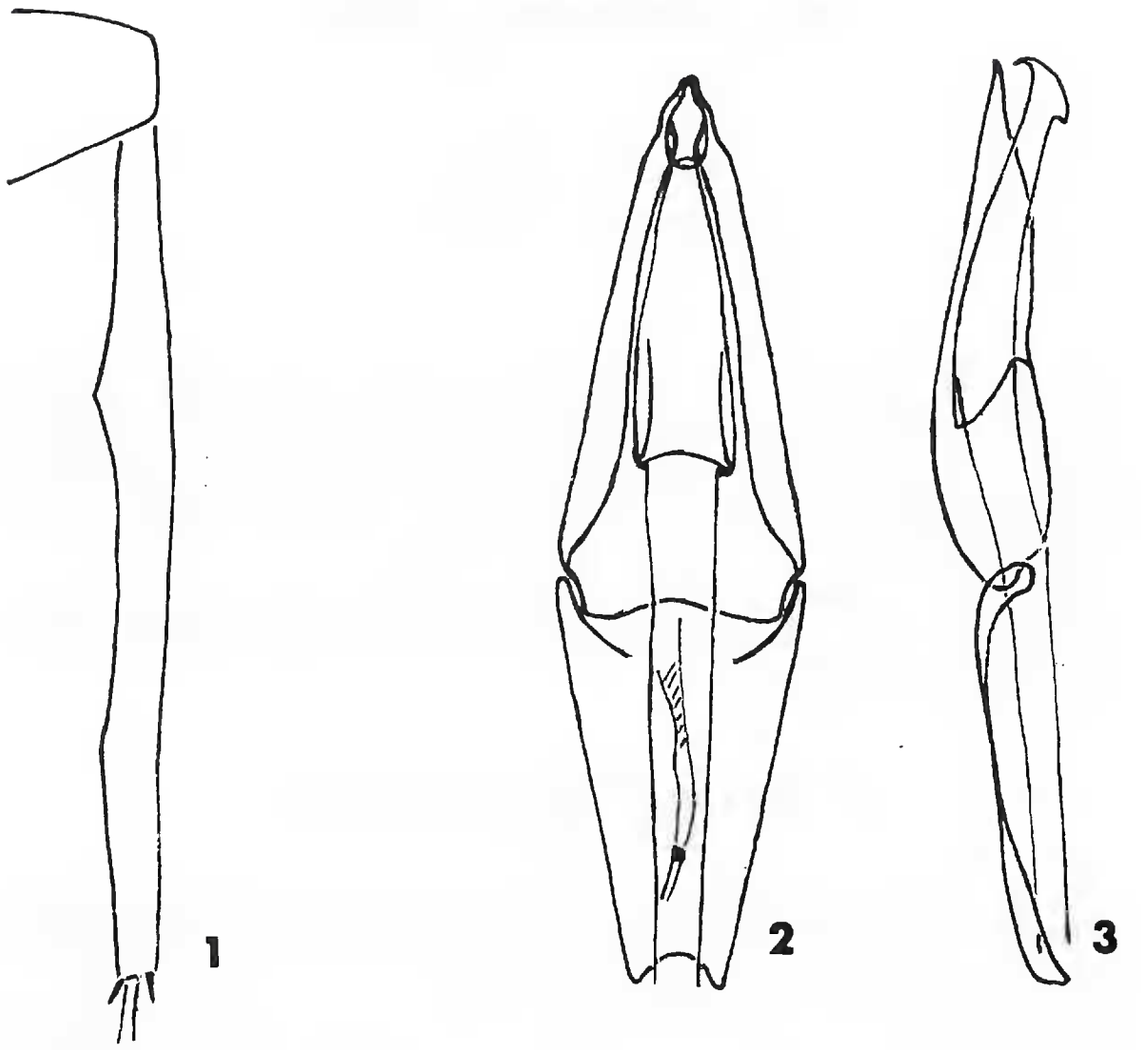

Fig. 1. Lateral view right metatibia of male. Fig. 2. Ventral view male genitalia. Fig. 3. Left lateral view male genitalia.

Berkeley). 1 male, 1 female, Grand Island, 23 March 1966, M. S. Wasbauer (Calif. Dept. of Agriculture).

If the reticulation on the head and thorax is visible, *sacramento* keys to couplet 11 in Werner's (1964) key to North American *Anthicus*. If the reticulation is not visible, *sacramento* will key to couplet 23. At couplet 11 the species can be separated from *maritimus* LeConte by the prominent elytral humeri and elongate antennal segments, and from *custodiae* Werner by the fainter microreticulation and denser setation. It can be separated at couplet 23 by the rounded basal angles of the head and the size being greater than 3.00.

A. sacramento apparently is restricted to the sand dune areas near the mouth of the Sacramento River. This is important as these small areas are often used for recreation by offroad vehicles and as a source of material for the sand and gravel industry. This species conceivably would become extinct if its restricted habitats were removed or altered.

A similar situation is possibly threatening the existence of *Anthicus antiochensis* Werner, which is restricted to the small sand dune area near Antioch, California. The dune area, including the type locality, has been severely reduced by the construction of a large industrial plant. The type series of *antiochensis* was collected prior to the construction of the plant in 1952-1953. Only recently was a small series collected, despite repeated attempts to collect the species during the intervening years.

Literature Cited

Werner, F. G. 1964. A revision of the North American species of *Anthicus,* s. str. (Coleoptera: Anthicidae). Misc. Publ. Entomol. Soc. America 4:197-242.

SCIENTIFIC NOTE

Notes on Mantids *(Stagmomantis, Iris)* as Possible Predators of Conenose Bugs *(Triatoma, Paratriatoma).* — Wood (1975, NPCO News 35:18) reported experimental destruction of *Triatoma* by a mantid, *Litaneutria* (?). Mantids were confined to covered circular plastic dishes, 26 cm in diameter and 10 cm deep. A piece of damp filter paper covered the floor of the container. For aeration, the lids were drilled with five holes, 3 mm in diameter.

A male California mantid, *Stagmomantis californica* Rehn & Hebard, ate one male *Triatoma protracta navajoensis* Ryckman except for five legs and two wings. Six days later it ate one replete fifth instar nymph except for head, legs and the posterior half of the abdomen.

Three female Mediterranean mantids, *Iris oratoria* (Linnaeus), were collected X-13-75 on oleanders at Borrego Springs, San Diego Co., CA. Strohecker (1952, Pan-Pacific Ent. 28:138) first reported this mantid from the Coachella Valley east of the Borrego Valley in California. In the laboratory at Thousand Oaks they were at first confined to plastic dishes and offered chiefly *T. p. navajoensis* as food. The mantids feed from any position, horizontal, head up or head down. The pattern of feeding was to grasp the triatome by the head and abdomen with both forelegs and begin chewing vigorously on the thorax with the victim held horizontally. In most instances the prothorax and head were consumed first, followed by the rest of the thorax and abdomen. By eating the smaller portion first, the mantid freed one leg for aid in holding and manipulating the heavier abdomen. The insect systematically chewed along the outer edges of the exoskeleton, segment by segment, pausing periodically to consume the internal tissues. Individual legs of the